



Exploiting Real-Time Data with ArcGIS GeoEvent Processor for Server

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GIS data

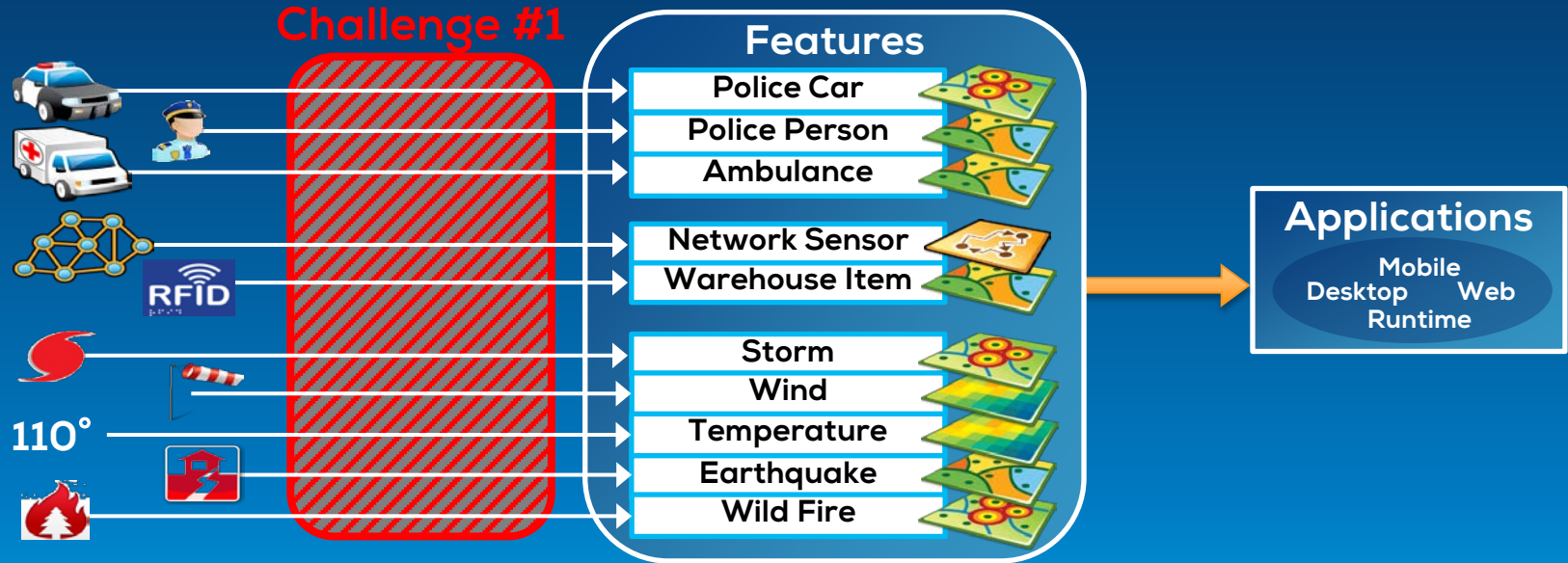
- Typically represents state at a specific moment in time: “historic”, “current”, or “future”.



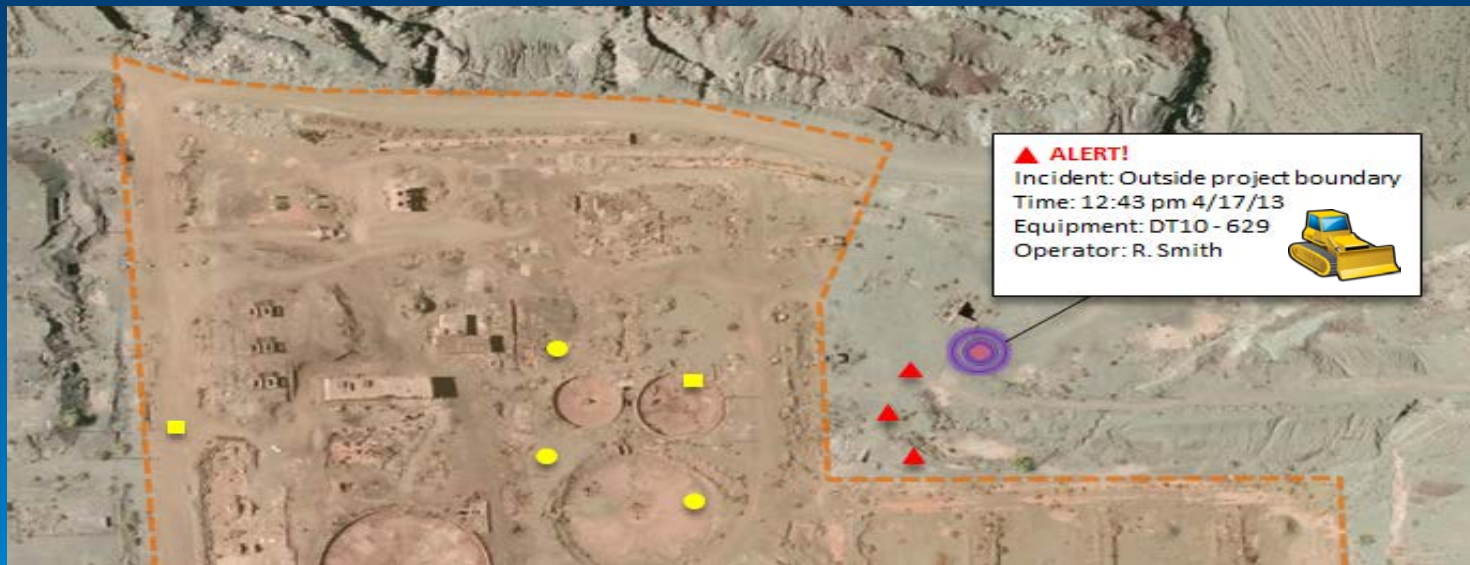
Credit: iStockphoto/chris_lemmens

Real-time GIS data

...continuous stream of events flowing from sensors representing the latest state.



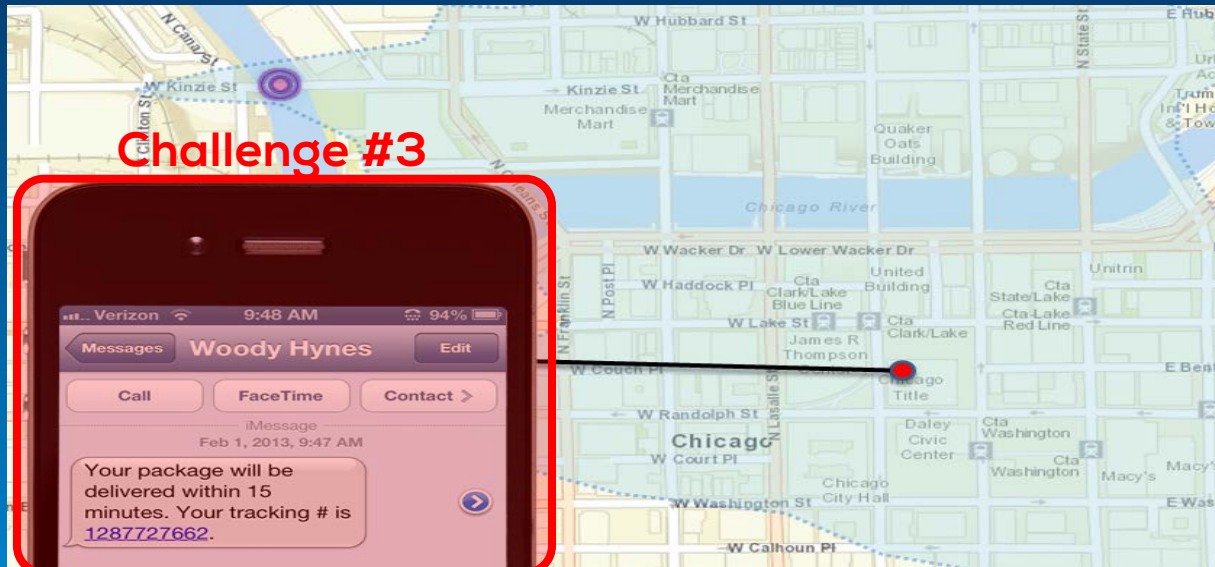
Analyzing real-time GIS data



Challenge #2

...Are my field personnel working within the designated project area?

Analyzing real-time GIS data



Continuous Analysis

Enter Customer Area

Features

Delivery Vehicle
Notification

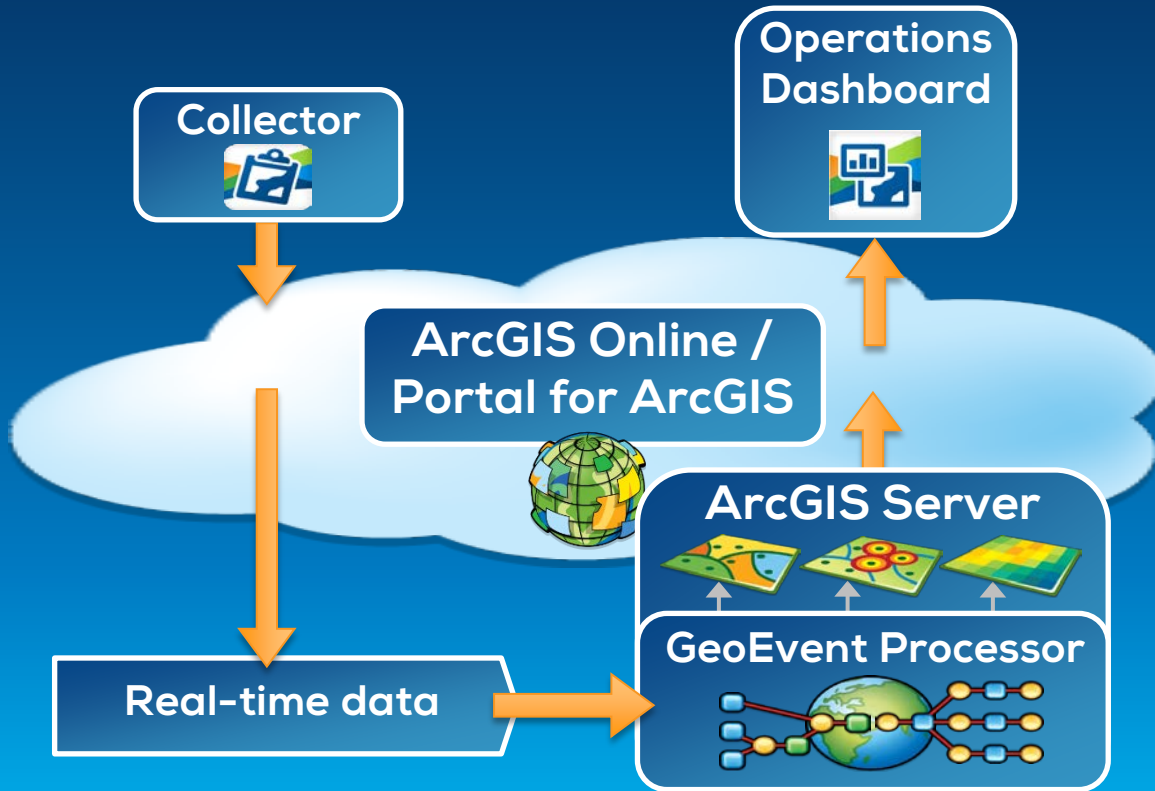


Applications

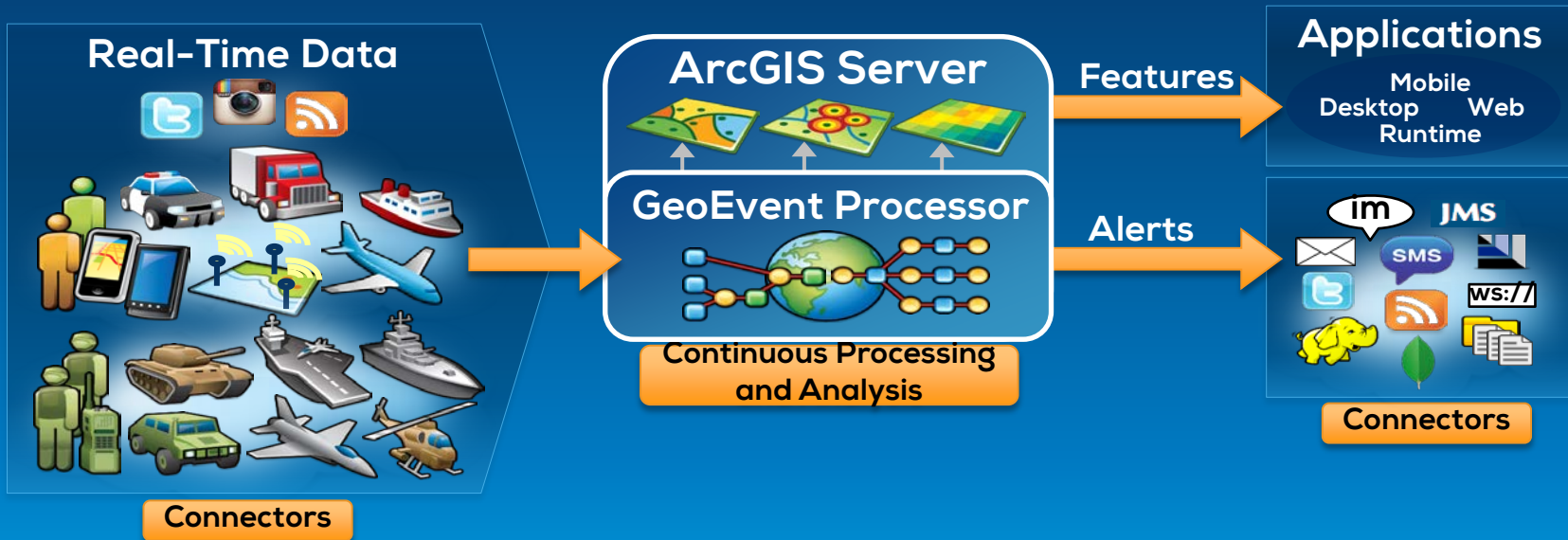
Mobile
Desktop Web
Runtime

...Tell customer when their delivery truck is 15 minutes away.

ArcGIS supports real-time GIS



ArcGIS GeoEvent Processor for Server

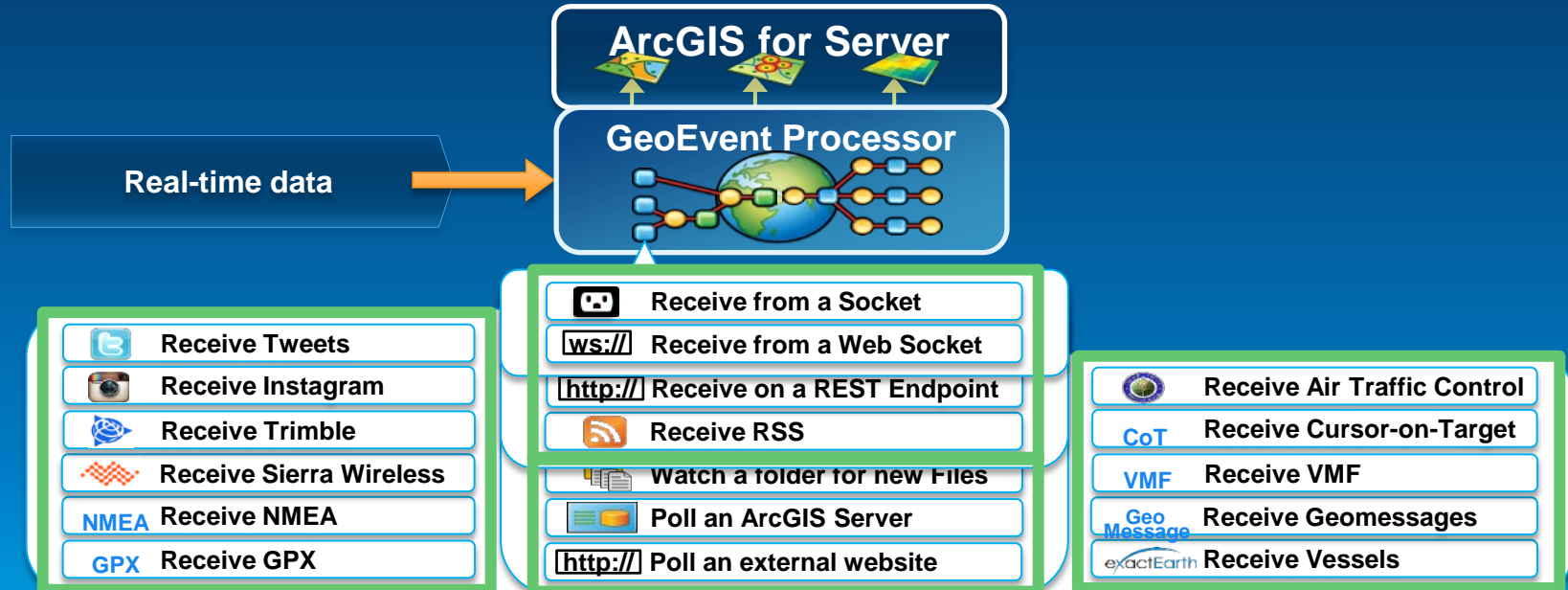


Working with real-time data



Receiving real-time data

Input connectors...



You can add your own connectors.



twitter-monitor

Inputs: twitter-in
Outputs: tcp-text-out, tweet-fs-out
Description: Twitter Monitoring
Status: Started

```

Administration: root@poc-CentWebMonitor:~/twitter-monitor$ ./twitter-monitor
[2013-03-23 10:59:01.000] INFO: Starting twitter-monitor
[2013-03-23 10:59:01.000] INFO: Loading configuration
[2013-03-23 10:59:01.000] INFO: Configuration loaded successfully
[2013-03-23 10:59:01.000] INFO: Connecting to twitter-in
[2013-03-23 10:59:01.000] INFO: Connected to twitter-in
[2013-03-23 10:59:01.000] INFO: Starting outputs
[2013-03-23 10:59:01.000] INFO: Started tcp-text-out
[2013-03-23 10:59:01.000] INFO: Started tweet-fs-out
[2013-03-23 10:59:01.000] INFO: Monitoring started
[2013-03-23 10:59:01.000] INFO: Received tweet from twitter-in
[2013-03-23 10:59:01.000] INFO: Processing tweet
[2013-03-23 10:59:01.000] INFO: Tweet is geolocated
[2013-03-23 10:59:01.000] INFO: Sending tweet to tcp-text-out
[2013-03-23 10:59:01.000] INFO: Sending tweet to tweet-fs-out
[2013-03-23 10:59:01.000] INFO: Monitoring continues

```

twitter-in

tcp-text-out



tweet-fs-out



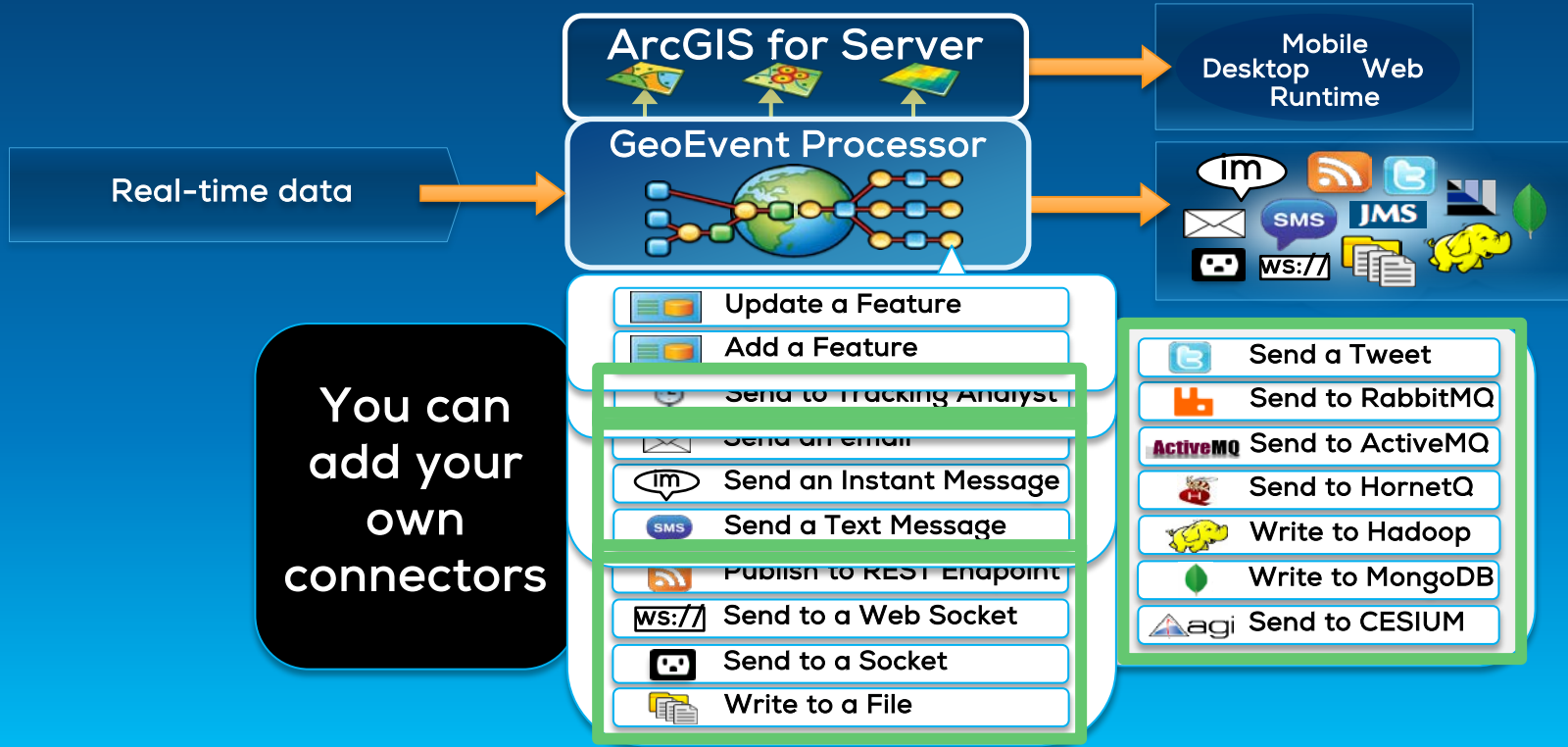
Name	Status	Count	Rate (over last 5 mins)		Max Rate	Time Since Last
tweet-fs-out	STARTED	40	0.39 /sec		0.64 /sec	00:00:00
tcp-text-out	STARTED	6566	64.37 /sec		65.07 /sec	00:00:00

Demonstration

Twitter monitoring

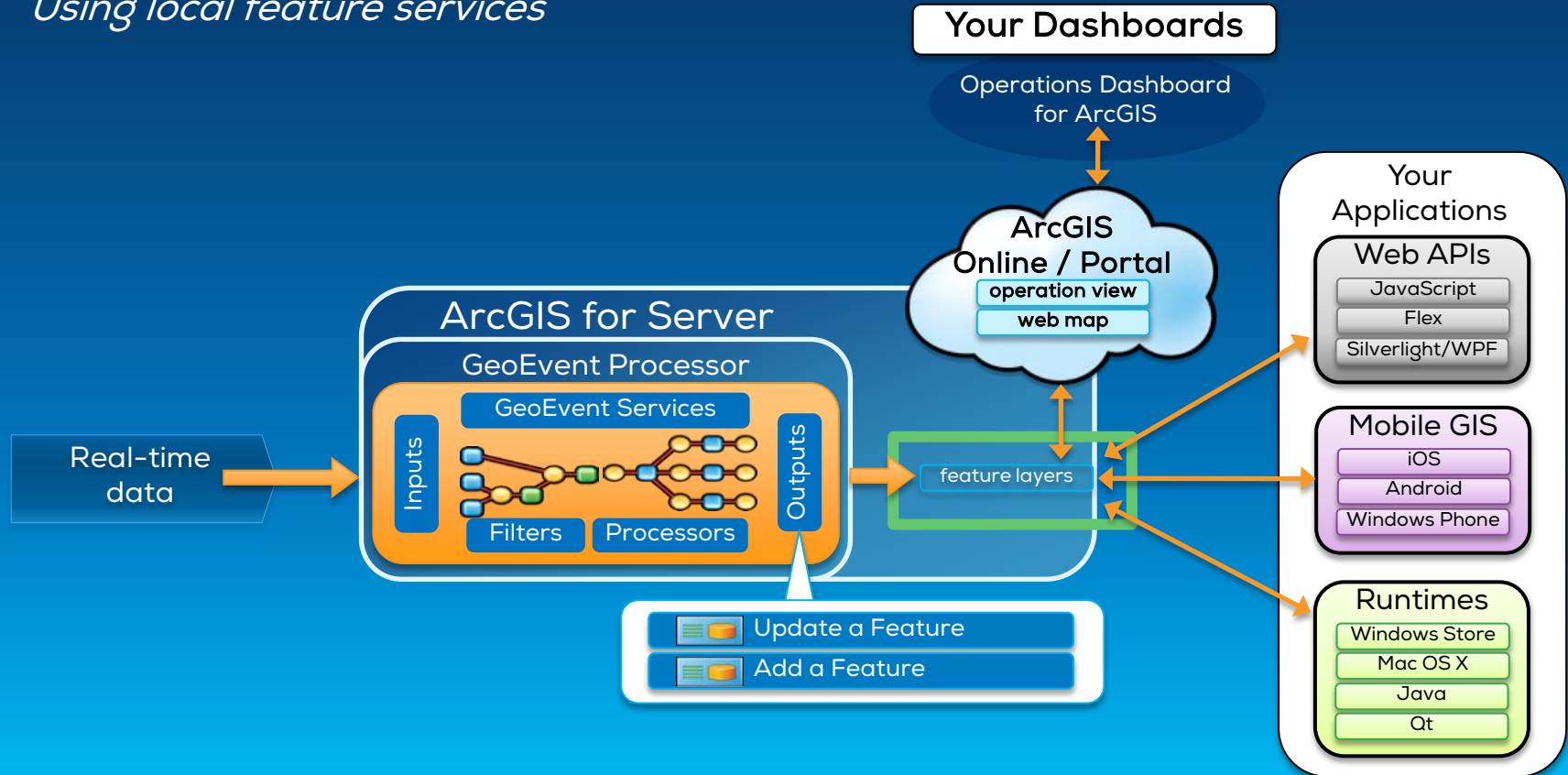
Sending real-time data

Output connectors...



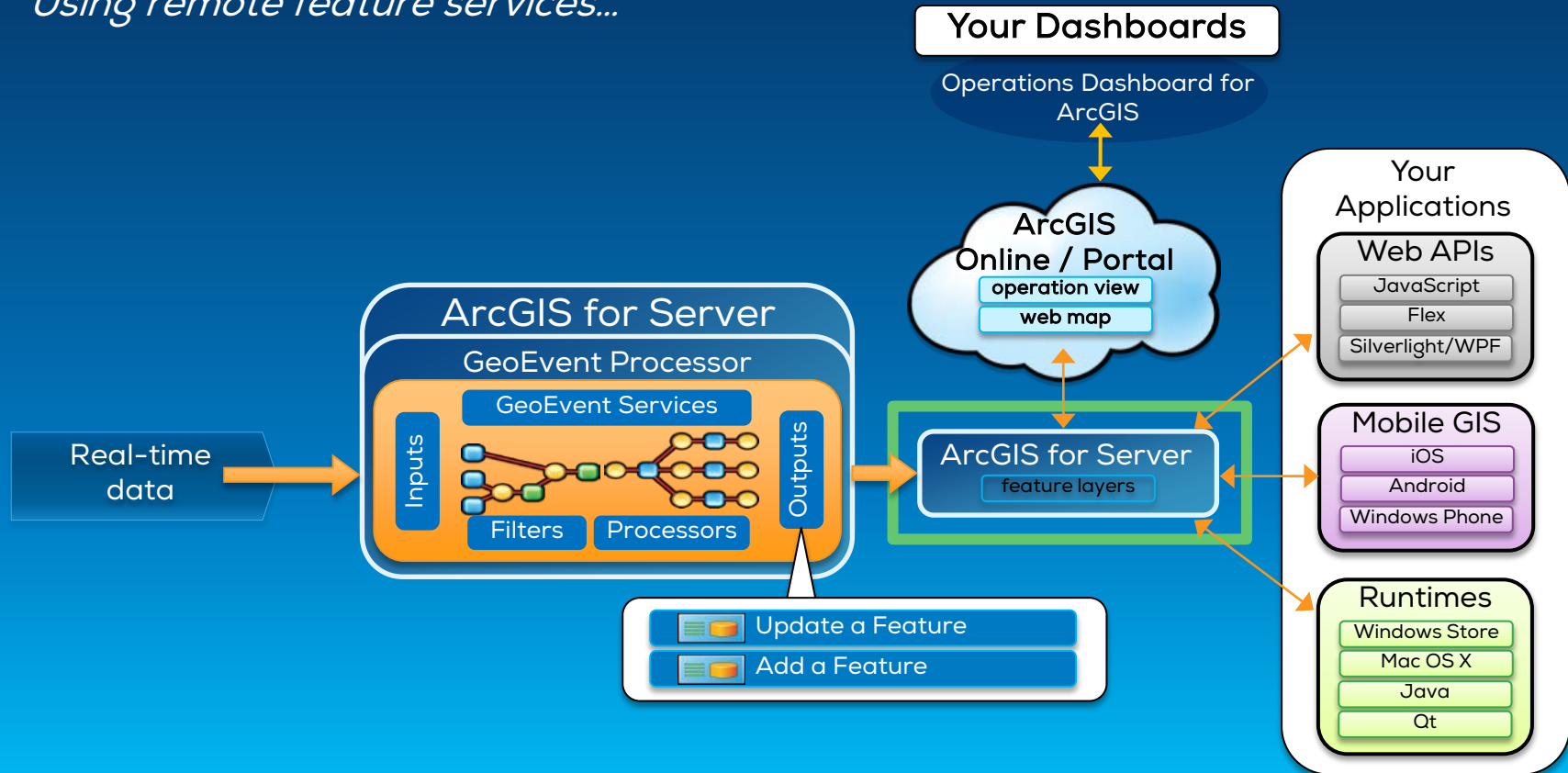
Sending real-time data to features

Using local feature services



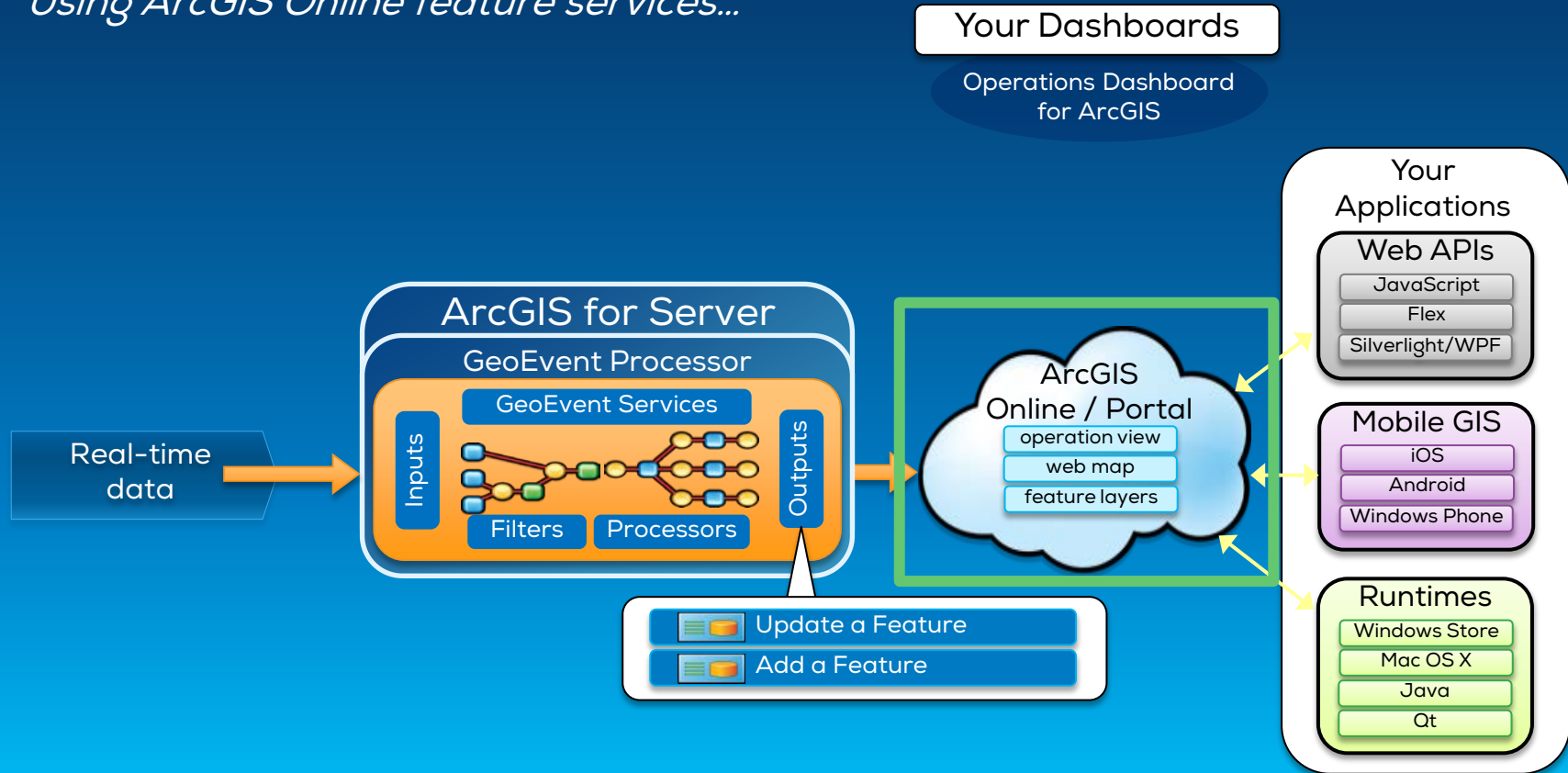
Sending real-time data to features

Using remote feature services...



Sending real-time data to features

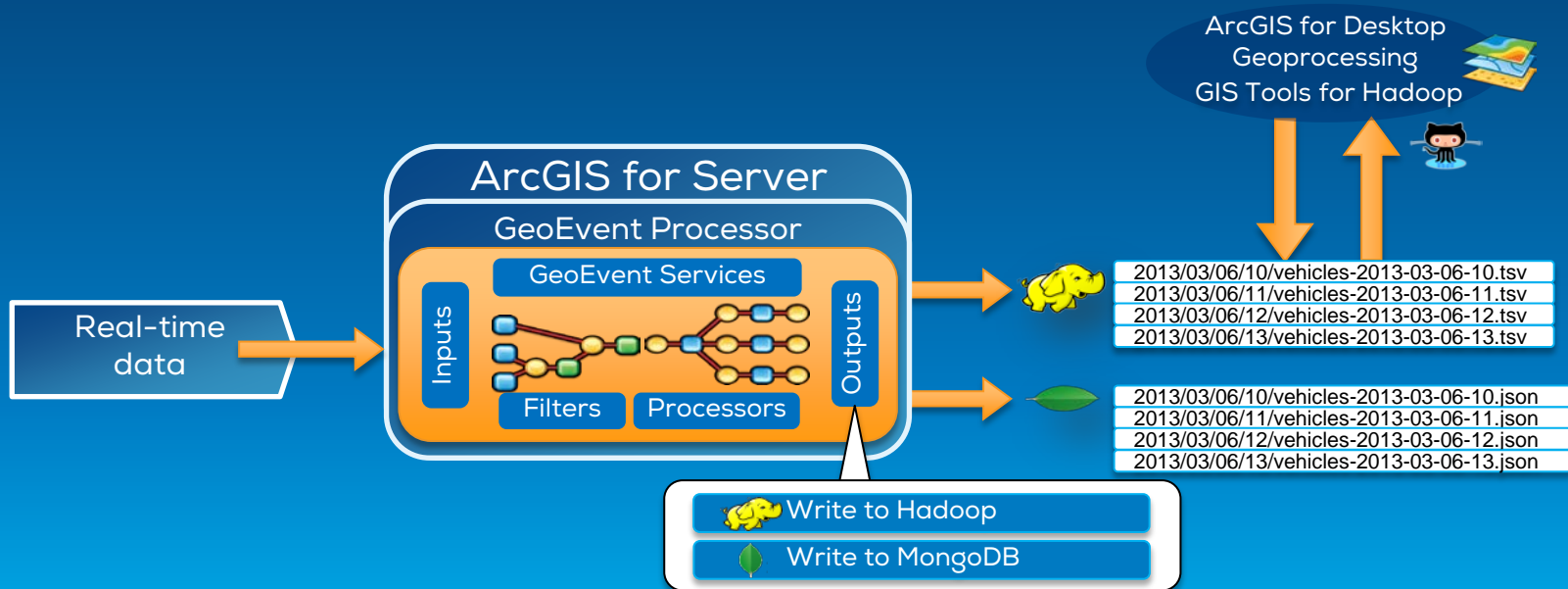
Using ArcGIS Online feature services...



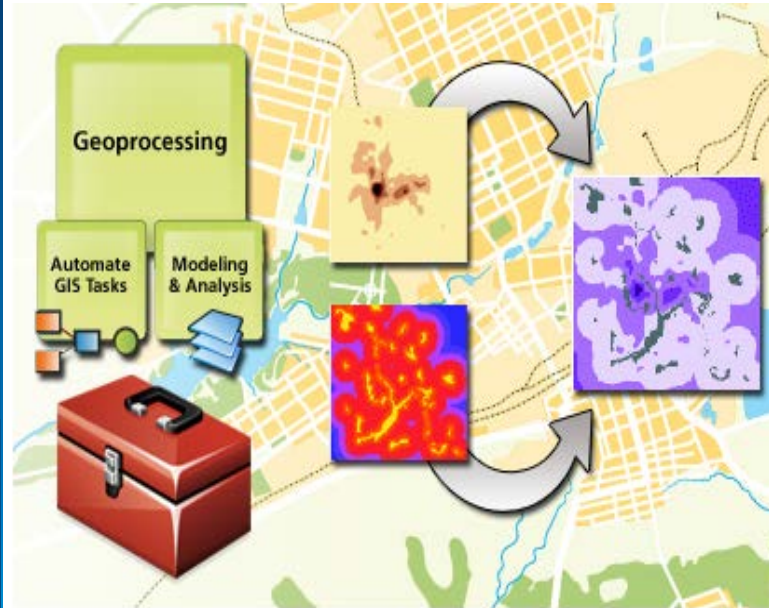
Sending real-time data to big data stores

Write to a Hadoop Distributed File System (HDFS)

Write to a MongoDB Document Store

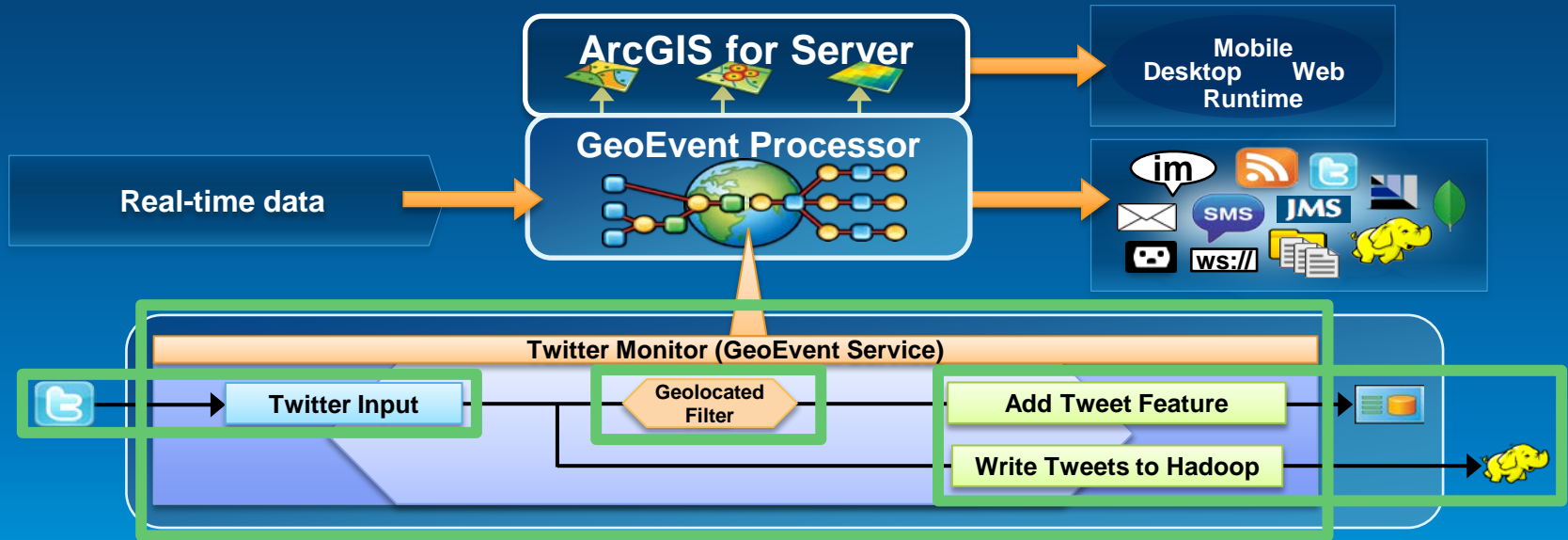


Performing continuous processing and analysis



Continuous processing and analysis

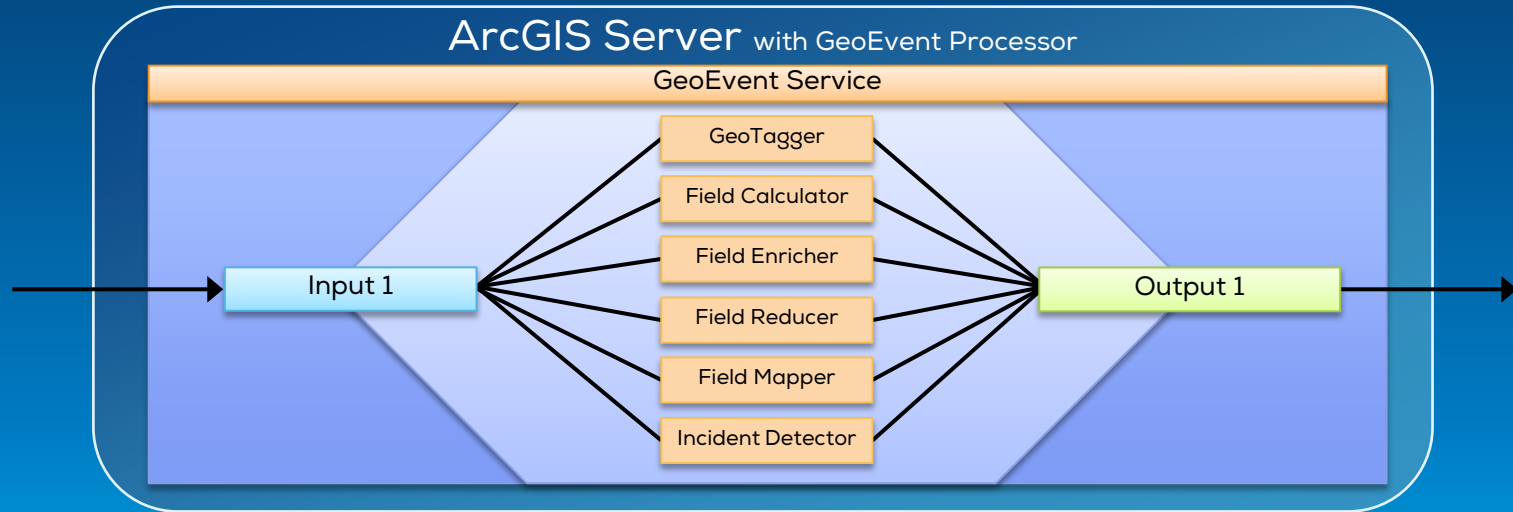
GeoEvent Services...

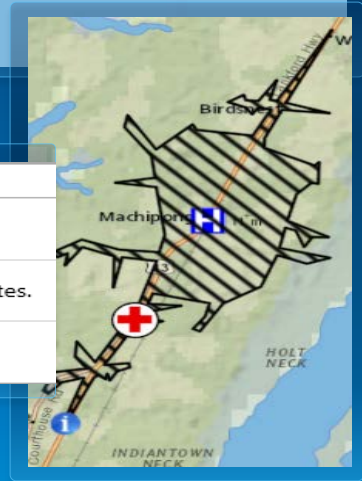
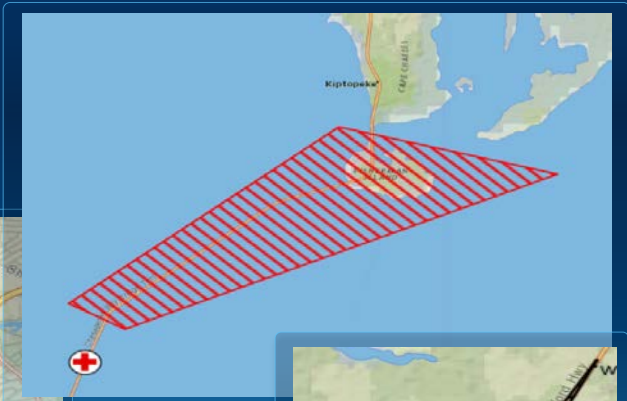
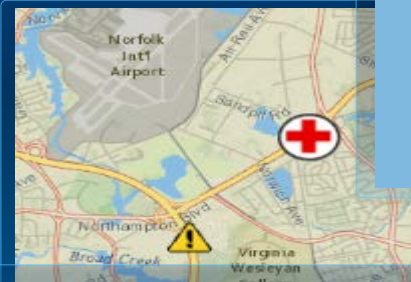







Continuous processing and analysis

Processors...





Alerts

-  AMB-15 is approaching Hospital, Started at Sun Mar 24 02:19:00 PDT 2013
-  AMB-15 is inside a Dangerous area, Ended at Sun Mar 24 01:56:00 PDT 2013 and lasted for 13 minutes.
-  AMB-15 is speeding, Ended at Sun Mar 24 01:25:00 PDT 2013 and lasted for 8 minutes.

Demonstration

Vehicle monitoring

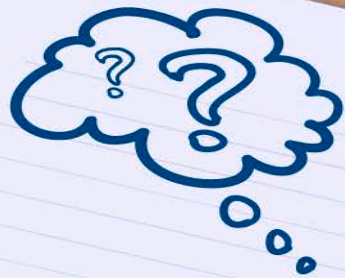
Wrap Up



Real-time GIS with GeoEvent Processor

Summary

- ArcGIS is a dynamic platform that enables real-time visualization, continuous analysis, and understanding of our world.
- GeoEvent Processor allows you to:
 - be alerted when interesting events occur
 - react and make smarter decisions faster
 - to know what is happening, as it happens
- Product Page
 - <http://pro.arcgis.com/share/geoevent-processor>



questions?
& answers





Understanding our world.